

AMENDMENTS TO THE CLAIMS

Before claim 1, change CLAIMS to I CLAIM:

Cancel claims 1-36 without prejudice or disclaimer of the subject matter therein and substitute new claims 37-73 therefor:

Claims 1-36 (cancelled)

37. (new) Self-closing diaphragm valve (V) with a slit diaphragm (1) and a dome-like securing part (2) associated with a mounting region (6) of the diaphragm (1), wherein the securing part (2) is connected in a positively locking or integral manner to the diaphragm (1) and has a configuration enabling securement in a closure part (7) by latching or over-engagement on the outer periphery of the circumference.

38. (new) Self-closing diaphragm valve according to claim 37, wherein the diaphragm (1) rests at least centrally on a plate part (34).

39. (new) Self-closing diaphragm valve according to claim 38, wherein the plate part (34) is formed to taper in the direction of the diaphragm (1).

40. (new) Self-closing diaphragm valve according to claim 38, wherein the plate part (34) tapers in a step-like manner.

41. (new) Self-closing diaphragm valve according to claim 38, wherein the diaphragm (1) rests with prestressing on the plate part (34) or vice versa.

42. (new) Self-closing diaphragm valve according to claim 37, wherein the securing part (2) is formed as an annular flat part.

43. (new) Self-closing diaphragm valve according to claim 37, wherein the cross-section of the securing part (2) converges in the direction of its center.

44. (new) Self-closing diaphragm valve according to claim 37, wherein the securing part (2) has an outer

shape which corresponds to a hollow section and on which the diaphragm (1) rests.

45. (new) Self-closing diaphragm valve according to claim 37, wherein the securing part (2) does not engage around the diaphragm (1).

46. (new) Self-closing diaphragm valve according to claim 37, wherein the securing part (2) engages around the diaphragm (1).

47. (new) Self-closing diaphragm valve according to claim 37, wherein cross-sectional length of the diaphragm (1) which does not have the securing part (2) engaging around it but coincides therewith is greater than the length around which the securing part engages.

48. (new) Self-closing diaphragm valve according to claim 37, wherein the diaphragm (1) is connected integrally to the securing part (2) by means of an adhesion promoter (10).

49. (new) Self-closing diaphragm valve according to claim 37, wherein the diaphragm (1) is connected to the securing part (2) by two-component injection molding.

50. (new) Self-closing diaphragm valve according to claim 37, wherein the radius of curvature (R) of the diaphragm (1) is between the dimension of the diameter (D) and that of the radius, preferably four fifths of the diameter (D).

51. (new) Self-closing diaphragm valve according to claim 37, wherein the diaphragm (1) is produced separately from the securing part (2) and, prior to connection to the securing part (2), is configured with a planar surface.

52. (new) Closure (8) which is produced by plastic injection molding and is intended for a dispensing container, including a blow-molded bottle, the closure (8) having a self-closing diaphragm valve (V) which interacts with a securing part (2), wherein the diaphragm (1), which is of dome-like configuration even in a free-span region, is connected in a positively locking or integral manner to the securing part (2), the securing part (2) being secured in the closure (8) by latching.

53. (new) Closure according to claim 16, wherein the closure part (7), which encircles the securing part (2) on the outside, acts on the diaphragm (1), at the same time, in the manner of a cutting edge in the region of overlap with the securing part (2).

54. (new) Closure according to claim 52, wherein the diaphragm (1) has a deflecting holder (27) of the closure part (7), the deflecting holder having apertures (29), positioned beneath it.

55. (new) Closure according to claim 54, wherein a crosspiece (28) of the deflecting holder (27) is assigned to a slit (4) of the diaphragm (1) in vertical projection.

56. (new) Closure according to claim 54, wherein the deflecting holder (27) is positioned at a free distance (y) beneath the diaphragm (1).

57. (new) Closure according to claim 52, wherein the diaphragm (1) rests at least centrally on a plate part (34).

58. (new) Closure according to claim 57, wherein the plate part (34) is formed to taper in the direction of the diaphragm (1).

59. (new) Closure according to claim 57, wherein the plate part (34) tapers in a step-like manner.

60. (new) Closure according to claim 57, wherein the diaphragm (1) rests with prestressing on the plate part (34) or vice versa.

61. (new) Closure according to claim 52, wherein the closure (8) has a closure lid (22), in that a cup (42) which is open at the bottom is integrally formed on the closure lid (22), and in a region of overlap with the diaphragm (1), and a free end periphery (43) of the cup (42), in the closed state, is seated in a sealing manner on the diaphragm (1), and in that a plate part (34), which is attached via resilient arms (37), bears beneath the diaphragm (1).

62. (new) Closure according to claim 61, wherein a free outer periphery (46) of the cup (42) is directly adjacent to an inner wall (44) of the diaphragm (1) in the closed state.

63. (new) Closure according to claim 62, wherein the outer periphery (46) of the cup (42) bears in a sealing manner against the inner periphery (47) of the securing part (2).

64. (new) Closure according to claim 62, wherein the securing part (2), associated with the outer periphery (46) of the cup (42), has a sealing profiling (48).

65. (new) Closure according to claim 62, wherein the outer periphery (46) of the cup (42) has longitudinal ribs (71) which are seated on the securing part (2) in the closed position of the closure (8).

66. (new) Closure according to claim 57, wherein slits (4) of the diaphragm (1) project beyond the plate part (34) in the radially outward direction.

67. (new) Closure according to claim 52, wherein the closure lid (22) has a latching button (51) of the closure (8) passing through it, it being possible for this latching button to be used for tamperproof sealing, and in that

the latching button (51) has a surface which is structured in a rib-like manner.

68. (new) Closure according to claim 67, further comprising vertical ribs (52).

69. (new) Process for producing a self-closing diaphragm valve (V) with fitting of a diaphragm (1) in an annular securing part (2), the diaphragm (1) consisting of an elastomer, wherein a securing part (2) is produced by plastic injection molding, and the elastomer material (59) is then added in a fluid state to the securing part (2) accommodated in a mold (60) and, with the aid of a counter-mold (63), the elastomer material (59) is distributed in order to form the diaphragm as desired.

70. (new) Process according to claim 69, wherein the elastomer material (59), which cures preferably by a crosslinking reaction, is connected in an integral and/or positively locking manner to the securing part (2), rear-engagement regions (57) being formed in respect of the positive locking.



71. (new) Process according to claim 69, wherein the elastomer material (59) is prepared for application by means of an extruder, and, in a following processing step, a slit (4) is formed in order to provide a dispensing opening.

72. (new) Process according to claim 69, wherein the diaphragm elastomer is a silicone material.

73. (new) Self-closing diaphragm valve (V) which is accommodated in an annular securing part (2), produced by plastic injection molding, and has a diaphragm (1) made of an elastomer material (59) with a slit (4) for forming a dispensing opening when acted upon by pressure, wherein the diaphragm (1), when formed in a manner in which it is free of cut edges on its circumferential periphery (58), is connected in a positively locking and/or integral manner to the securing part (2).